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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,884	02/21/2002	Robert Hatzl	22123	9947

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EXAMINER	
BLACKNER, HENRY A	

ART UNIT	PAPER NUMBER
3641	

DATE MAILED: 10/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/081,884	HATZL ET AL.
	Examiner	Art Unit
	Henry A. Blackner	3641

-- The MAILING DATE of this communication appears on th cover she t with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 August 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-11 and 13-16* is/are pending in the application.

4a) Of the above claim(s) *17* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,10,14,15 and 16* is/are rejected.

7)☒ Claim(s) *4,6-9,11, and 13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☒ The proposed drawing correction filed on *25 August 2003* is: a)☒ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *11* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

Newly submitted claim 17 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-16, drawn to Pyrotechnic Initiator, classified in class 102, subclass 202.7.

II. Claim 17, drawn to a Method, classified in class 205, subclass 80.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, a pyrotechnic initiator as claimed, can be manufactured using any one of the following processes: evaporation, oxidation, or sputtering.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 17 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Austria on 23 February 2001. It is noted, however, that applicant has not filed a certified copy of the A296/2001 application as required by 35 U.S.C. 119(b).

Information Disclosure Statement

The information disclosure statement filed 25 August 2003 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

1. Austrian Patent No. AT 405 591 B

Specification

The disclosure is objected to because of the following informalities: The term "*glowing bridge*", page 2 lines 3 and 15 and page 5 line 25, was previously identified as "*ignition bridge*". The term "*glowing bridge*", is not a standard term used in the art.

Appropriate correction is required.

Claim Objections

Claim 1 is objected to because of the following informality: The term "*bridge*", line 4, was previously identified as an "*electrically energizable initiator bridge*".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrases "*a less noble metal*", line 1, and "*a more noble metal*", line 4, are vague and indefinite, since it is unclear as to what constitutes the difference between a *less* noble and *more* noble metal. Accordingly, the claim cannot be further examined on the merits, since the intended scope and structure recited in the claim are so unclear that it is not possible to make a comparison with the prior art.

Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrases "*a more noble metal*", line 2, and "*a less noble metal*", line 3, are vague and indefinite, since it is unclear as to what constitutes the difference between a *less* noble and *more* noble metal. Accordingly, the claim cannot be further examined on the merits, since the intended scope and structure recited in the claim are so unclear that it is not possible to make a comparison with the prior art.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, and 10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 5,847,309 to Baginski.

In regards to claim 1, Baginski clearly illustrates a pyrotechnic initiator (50), which is comprised of a silicon wafer (52) with thin layers of silicon dioxide (53), on the front and back surfaces of the silicon wafer, which provide electrical insulation, an electrically energizable initiator bridge (54_3), and a reactive layer (58), which is comprised of a combustible metal, zirconium, and is situated over the electrically energizable initiator bridge, in the form of a rectangular steak, for the liberation of energy upon electrical energization of the electrically energizable initiator bridge, in figures 5(A) and 5(B) and column 6 lines 36-65, column 7 lines 1-29, column 8 lines 23-44, lines 57-58, and lines 63-66, column 9 lines 57-67, and column 10 lines 1-11.

In regards to claims 2, 3, and 10, see rejection of corresponding parts of claim 1, above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baginski in view of Willis. Baginski discloses the claimed invention except for illustrating a method that includes the process of sintering the combustible metal of the reactive layer to the electrically energizable initiator bridge. Willis teaches in column 6 lines 22-30, a method comprising the process of sintering, in order to create a layer of platinum silicide. The desired layer is created by depositing a layer of platinum over a layer of silicon, which is then sintered for approximately 30 minutes at 615 degrees centigrade. The remaining pure platinum is etched away leaving only the platinum silicide. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ Willis's method of combining two different metals together in order to produce an alloy that when energized, would allow a pyrotechnic initiator the capability to generate an efficient ignition mechanism.

Allowable Subject Matter

Claims 4, 6-9, 11, and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 25 August 2003 have been fully considered but they are not persuasive. In regards to the section of the argument directed toward: "*the Baginski reference is no longer anticipatory, since it does not describe providing a pyrotechnic initiator with a reactive layer which liberates energy by alloying with the metal of the bridge*", is not persuasive,

since the invention disclosed in Baginski, describes a pyrotechnic initiator that is comprised of a metal bridge, which is comprised of aluminum, and a reactive layer, which is comprised of zirconium, that are combined to form an alloy during a transformation from a solid state to a plasma state. In that the structure is the same as claimed and disclosed by the applicant, it is expected that it would operate in the same manner. The burden therefore shifts to the applicant to provide a showing as to why the structure of the invention would react differently, for example an alloy, than that of the prior art.

Applicant's arguments, see page 10 lines 13-20 and page 11 lines 1-20, filed 25 August 2003, with respect to claims 1-4, 6-11, and 13-16 have been fully considered and are persuasive. The rejection of claims 7-9 and 13 has been withdrawn.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry A. Blackner whose telephone number is 703-305-4799. The examiner can normally be reached on 09:15 - 17:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 703-306-4198. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5771.

hab
6 October 2003